IN THE CLAIMS

1. (Currently Amended) A method of plasma etching, comprising:

introducing into an etch chamber a substrate having a layer of dielectric material is at least one of HfO_2, ZrO2, $ZrSiO_2$, $HfSiO_2$, and TaO_2;

providing into the etch chamber a process gas comprising carbon monoxide and a halogen containing gas, wherein the carbon monoxide is supplied at a gas flow rate between about 20 sccm and about 300 sccm and the halogen containing gas is supplied at a flow rate between about 20 sccm and about 200 sccm; and

exposing the layer of dielectric material to a plasma formed from the process gas.

2. (Original) The method of claim 1 wherein the halogen containing gas comprises a chlorine containing gas.

3. (Original) The method of claim 1 wherein halogen gas comprises chlorine.

4. (Previously Presented) The method of claim 3 wherein said chlorine containing gas is Cl_2.

5. (Cancelled).

6. (Original) The method of claim 1 further comprising:
maintaining a gas pressure of between 2-100 mTorr.

7. (Original) The method of claim 5 further comprising the step of:
maintaining a gas pressure of 4 mTorr.

8. (Original) The method of claim 1 further comprising:
applying a bias power to a cathode electrode of 5 to 100 W.

9. (Original) The method of claim 6 further comprising:
applying a bias power to a cathode electrode of 20 W.

10. (Original) The method of claim 1 further comprising:
applying an inductive source power to an inductively coupled antenna of 200 to 2500 W.

11. (Original) The method of claim 5 further comprising:
applying an inductive source power to an inductively coupled antenna of 1100 W.

12. (Currently Amended) A method of plasma processing, comprising:
introducing into an process chamber a substrate having a layer of TaO_2;
introducing into the process chamber a process gas comprising carbon monoxide and a halogen containing gas, wherein the carbon monoxide is supplied at a gas flow rate between about 20 sccm and about 300 sccm and the halogen containing gas is supplied at a flow rate between about 20 sccm and about 200 sccm; and
exposing the layer of TaO_2 to a plasma formed from the process gas.

13. (Original) The method of claim 12 further comprising the step of:
maintaining the substrate at a temperature between 100 to 500 degrees Celsius.

14. (Original) The method of claim 12 further comprising the step of:
maintaining the substrate at a temperature of 350 degrees Celsius.

15. (Original) The method of claim 12 wherein the halogen containing gas comprises chlorine.

16. (Original) The method of claim 12 wherein the halogen containing gas is hydrogen chlorine.

17. (Currently Amended) A method of plasma processing, comprising:

introducing into the process chamber a process gas comprising carbon monoxide and a halogen containing gas, wherein the carbon monoxide is supplied at a gas flow rate between about 20 sccm and about 300 sccm and the halogen containing gas is supplied at a flow rate between about 20 sccm and about 200 sccm; and

exposing a substrate, disposed in the process chamber and having at least partially exposed material containing at least one of ZrO_2 and $ZrSiO_2$, to a plasma formed from the process gas.

18. (Original) The method of claim 17 wherein the halogen containing gas comprises chlorine.

19-20. (Cancelled)

21. (Currently Amended) A method of plasma etching, comprising:

introducing into an etch chamber a substrate having a $HfSiO_2$ layer;

providing into the etch chamber a process gas comprising carbon monoxide and a halogen containing gas, wherein the carbon monoxide is supplied at a gas flow rate between about 20 sccm and about 300 sccm and the halogen containing gas is supplied at a flow rate between about 20 sccm and about 200 sccm; and

exposing the $HfSiO_2$ layer to a plasma formed from the process gas.

22. (Previously Presented) The method of claim 21 wherein halogen gas comprises chlorine.